



DC300

Document Camera



USER MANUAL

Please read this manual carefully before operating the document camera and keep it for reference.

PRECAUTIONS

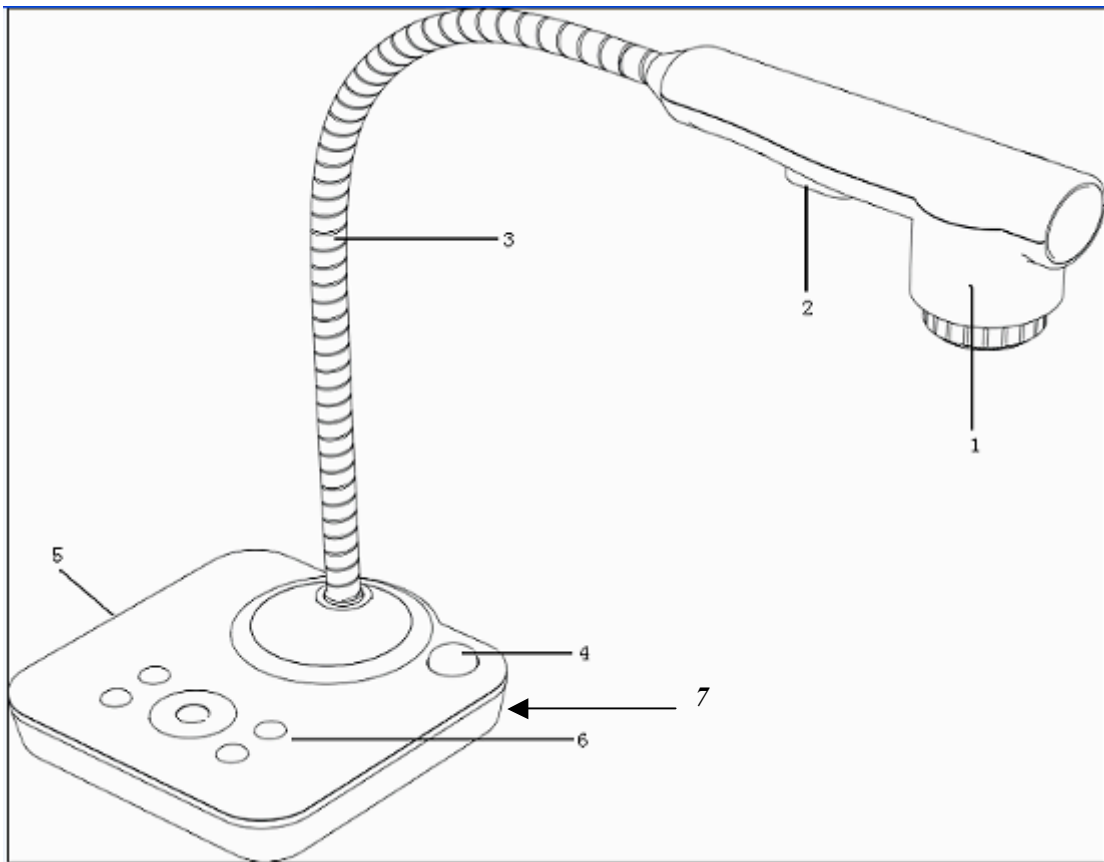


NOTICE: PLEASE READ CAREFULLY BEFORE USE

- ◆ Use the document camera under the rated electric conditions.
- ◆ Do not place the document camera on an unstable surface as it may fall, causing injury or damage.
- ◆ Do not place this device directly under sunlight or near heaters.
- ◆ Do not place this device near water.
- ◆ Keep the camera away from acid or alkali gas.
- ◆ Do not place this document camera in humid, dusty or windy environments.
- ◆ The recommended operating environment is:
 - Temperature: 0°C - 45°C (32°F-113°F)
 - Humidity: less than 75%
- ◆ Always unplug BEFORE cleaning the device. Use a damp soft cloth for cleaning. Do not use volatile solvent.
- ◆ Immediately unplug and call for professional assistance if equipment functions abnormally.
- ◆ Unplug the document camera when not in use.

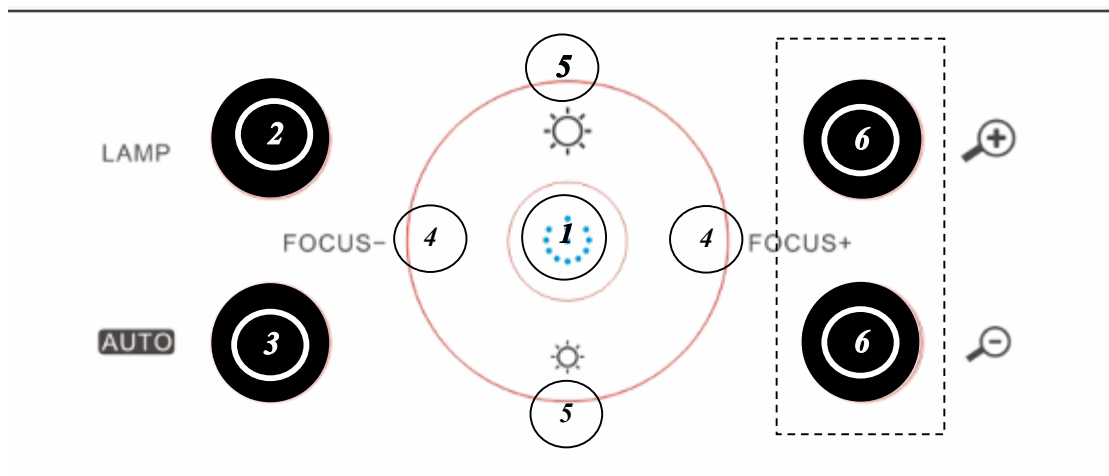
USER MANUAL	1
1. PARTS IDENTIFICATION	4
2. CONTROL PANEL	5
3. INPUTS AND OUTPUTS.....	5
4. REMOTE CONTROL.....	6
5. CONNECTIONS	7
5.1. COMPUTER CONNECTION	8
5.2. VGA OUTPUT CONNECTION.....	8
6. COMMUNICATE WITH COMPUTER.....	9
6.1 COMPUTER REQUIREMENTS	9
6.2 USB CAMERA	9
7. FEATURES.....	15
LIGHT	15
ZOOM IN AND ZOOM OUT.....	15
FOCUS ADJUSTMENT	15
BRIGHTNESS ADJUSTMENT.....	15
WHITE BALANCE ADJUSTMENT.....	15
TEXT/PICTURE MODE	16
IMAGE FREEZE	16
IMAGE MIRROR.....	16
SPLIT SCREEN	16
IMAGE SAVE	16
IMAGE RECALL	16
USB 2.0 PORT.....	16
USB IMAGE CAPTURE AND VIDEO RECORDING	17
8. SPECIFICATION	18
9. TROUBLE-SHOOTING	19
10. PACKING LIST.....	26

1. PARTS IDENTIFICATION



1. **Camera**
2. **LED Light**
3. **Flexible Camera Arm**
4. **IR Receiver for Remote Control**
5. **Interface Panel (VGA Port, Power Input and USB)**
6. **Control Panel**
7. **Kensington Lock**

2. CONTROL PANEL



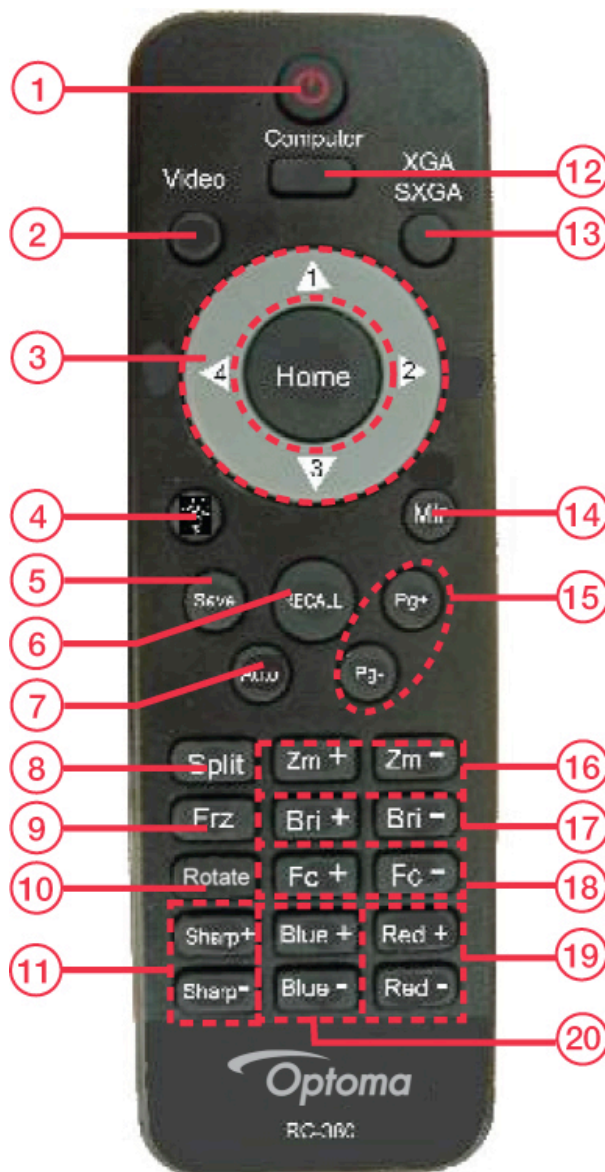
1. **POWER**: Turn on/off the power.
2. **LAMP**: Turn on/off the LED light.
3. **AUTO**: Perform auto focus, color adjustment and white balance.
4. **FOCUS+/-**: Adjust focus manually.
5. **BRIGHT+/-**: Image brightness control.
6. **ZOOM+/-**: Control image zoom in and zoom out.

3. INPUTS AND OUTPUTS



1. **DC 12V**: Power input.
2. **VGA OUT**: VGA (RGB) signal output (15 pin D-SUB).
3. **USB**: Capture image from connected computer with provided software.

3. **REMOTE CONTROL**

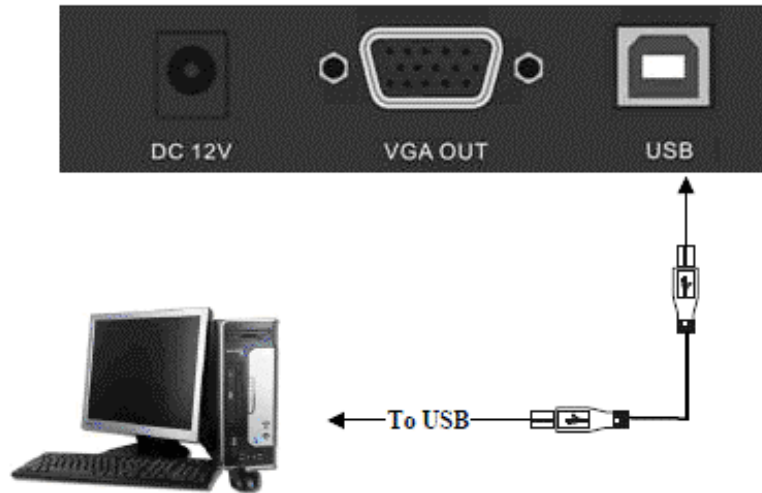


1. **Power:** Power document camera on and off
2. **Video:** Video mode
3. **Home/Directional Key:** Home button
4. **Lamp:** Turn LED light On/Off
5. **Save:** Capture the image in display
6. **Recall:** Image recall mode enabled, display the saved images
7. **Auto:** Perform auto focus, color adjustment and white balance
8. **Split:** Split screen enables the comparison between the frozen image and live image
9. **Freeze:** Freeze/unfreeze the image

10. **Rotate**: Rotate image
11. **Sharp+/-**: Image sharpness control
12. **Computer**: Computer mode
13. **SXGA/XGA**: Switch the output signal between XGA and SXGA
14. **Mirror**: Output right-and-left, up-and-down mirror image
15. **Page +/-**: Saved image page up and down when image recall mode is enabled
16. **Zoom+/-**: Image zoom in and zoom out control
17. **Bright+/-**: Image brightness control
18. **Focus+/-**: Adjust focus manually
19. **Red+/-**: Image chroma control (red)
20. **Blue+/-**: Image chroma control (blue)

5. CONNECTIONS

5.1. COMPUTER CONNECTION



5.2. VGA OUTPUT CONNECTION



6. COMMUNICATING WITH COMPUTER

6.1 COMPUTER REQUIREMENTS

Minimum PC and software requirements:

Operating system: Windows XP

CPU: Pentium 4 1.8GHz

Physical memory: 512M

Video memory: 64M

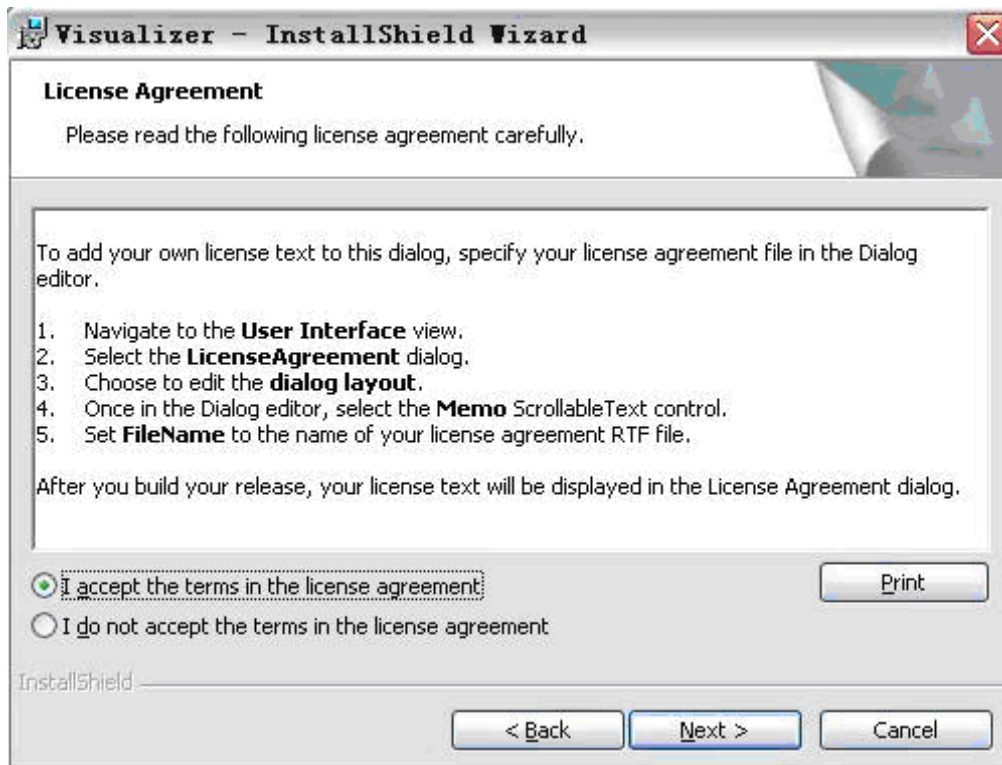
6.2 USB FUNCTION

SOFTWARE INSTALLATION

Click “Next” when dialogue box appears to run the software installation package:



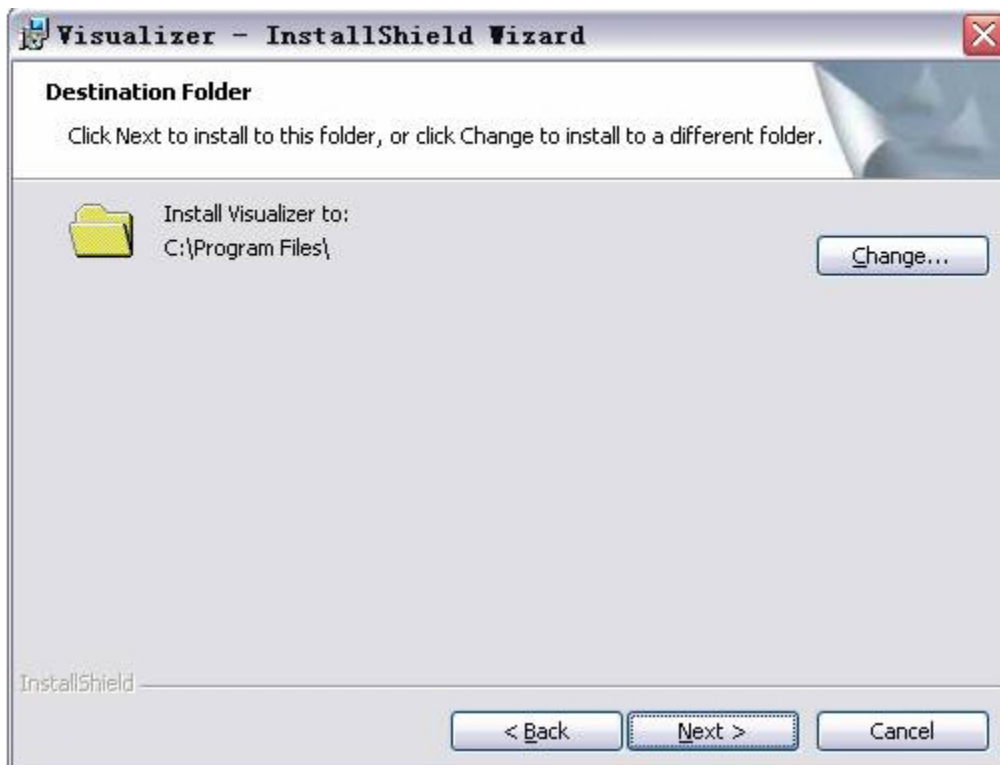
Read the terms, select "I accept the terms in the license agreement" and click "Next" as shown below:



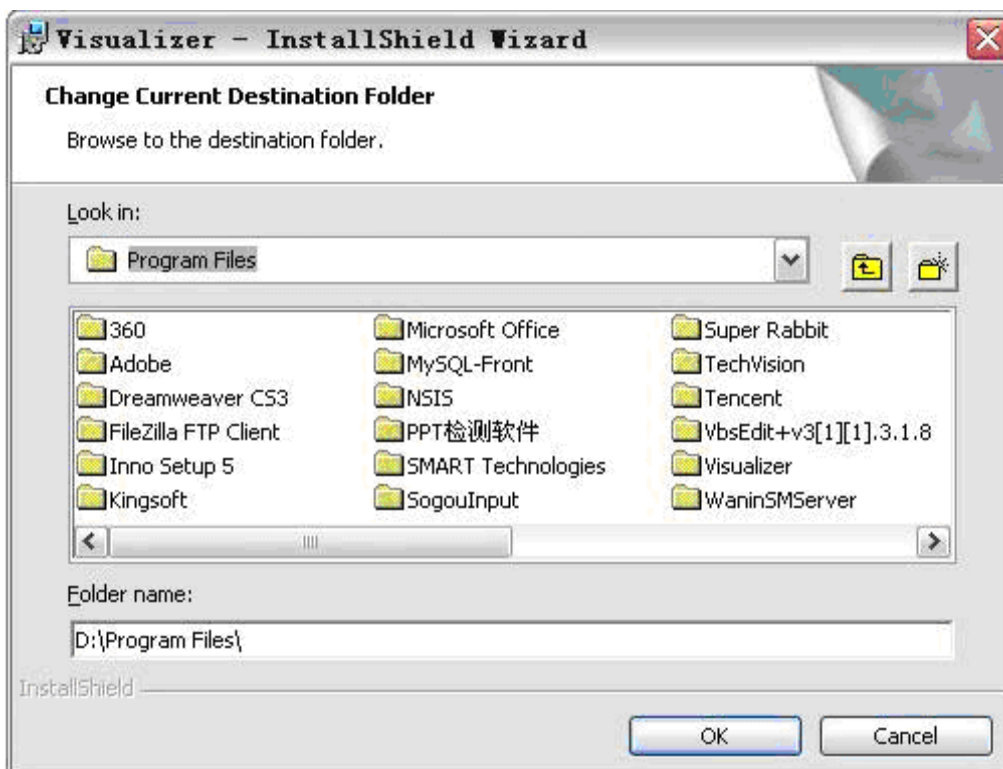
When the following dialogue box appears, click "Next":



The default installation directory is Program Files, C:\Program Files\. Click “Next” to proceed with default installation directory or click “Change” to select a different installation directory:



After selecting destination folder, click “OK”.



Then click "Next".



Click "Install" to complete installation.

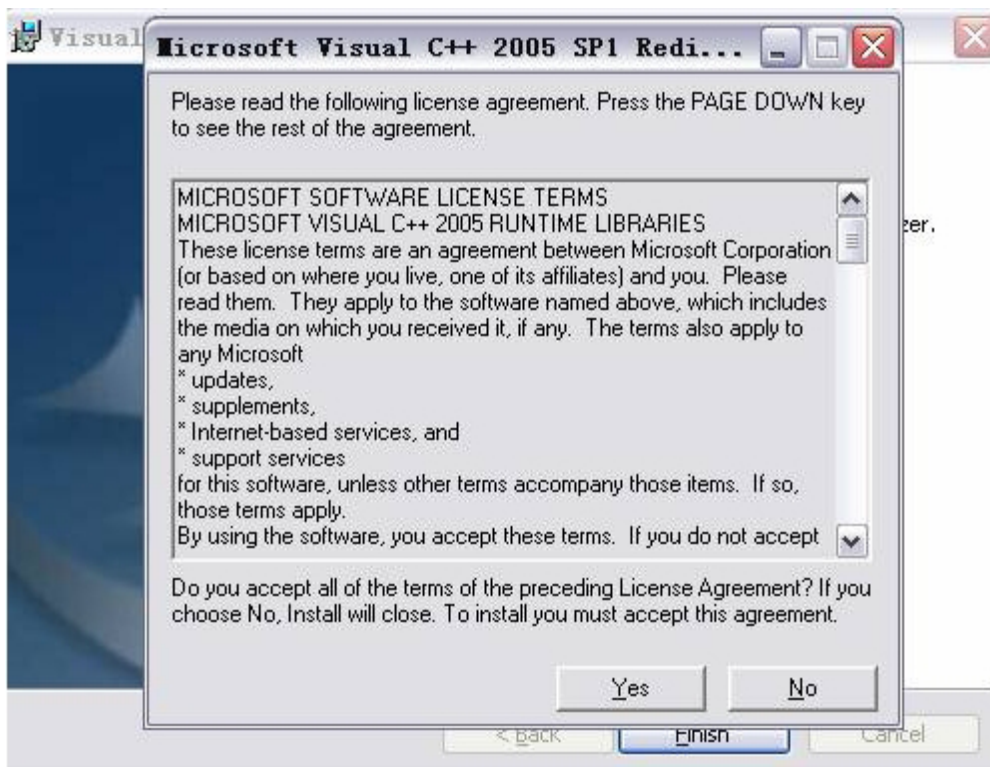


Click "Finish" to complete the installation.



Then you will see the following dialogue box, which is an installation package for 2005 C++ environment.

If your PC already has this installed, click "No" to exit. Otherwise, click "Yes" to install it.



STARTING SOFTWARE



Double click the short cut icon on the desktop to launch the software.

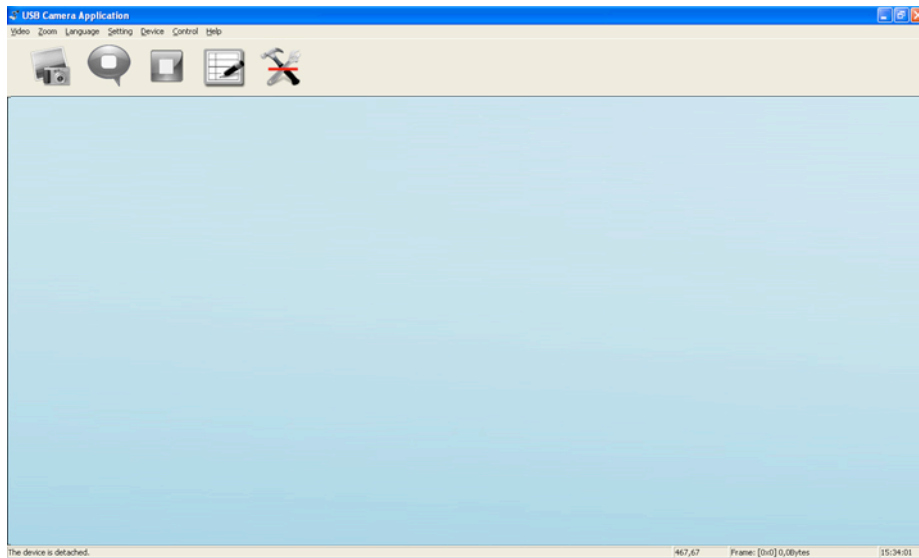
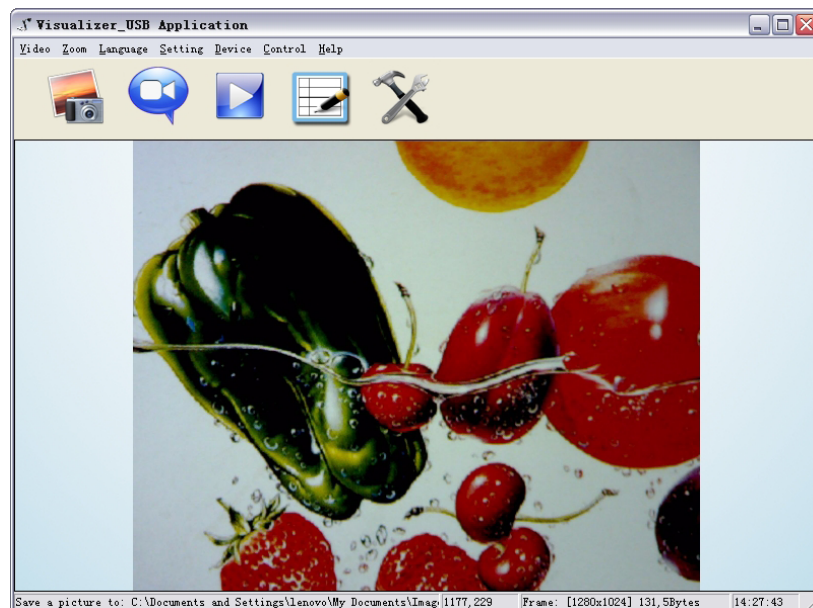



IMAGE CAPTURE AND VIDEO RECORDING



Left click to capture images. The captured images will be automatically saved into the default destination folder. The path and file name are displayed in software status bar on the bottom of the window as shown below:






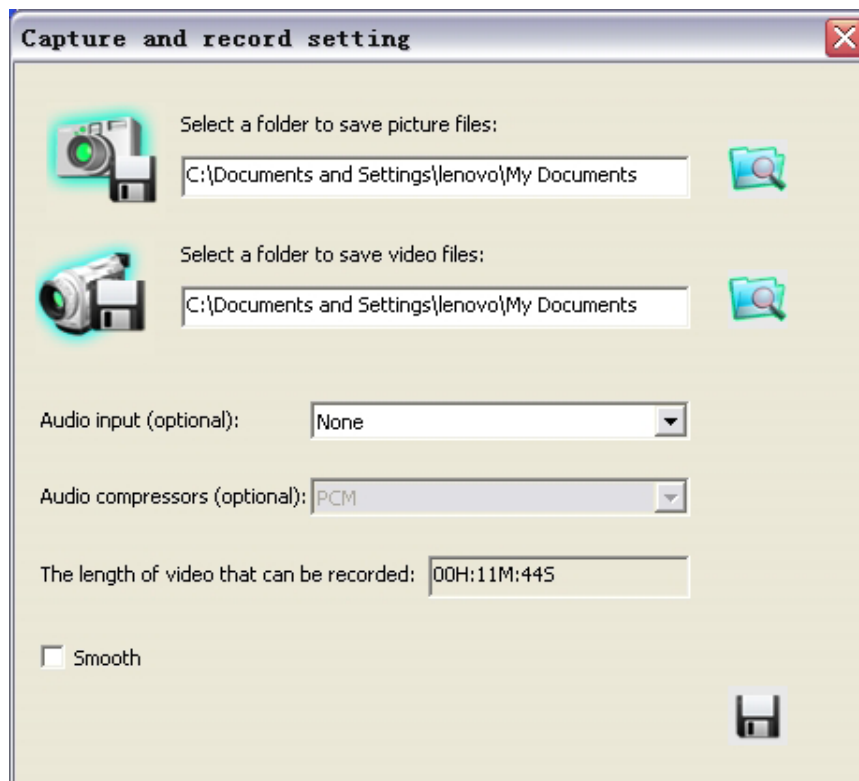
Left click  to start recording. While recording, the settings button will be inactive. Detailed information is displayed on the software status bar at the bottom of the window. The video is automatically saved in the default folder or pre-set folder.

SETTINGS

The captured images and recorded videos will be saved automatically into the Images and Videos folders.



To set a different path for the Image/Video to be saved, click  icon on the left side of the window and a pop up dialog box will appear as below:



Save captured images into a different folder

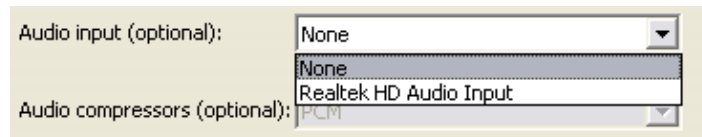
Click the button next to the "select a folder to save picture files" text box to set the path for captured images.

Save recorded video into a different folder and set up parameters for videos

Click the button next to the "Select a folder to save video files" text box to set the path for videos.

You can also change the video settings. The Audio input (optional) drop down box offers

the options of recording video with or without sound as shown below:



“The length of video that can be recorded” box displays the longest recording time for videos to be saved in the preset path as shown below:

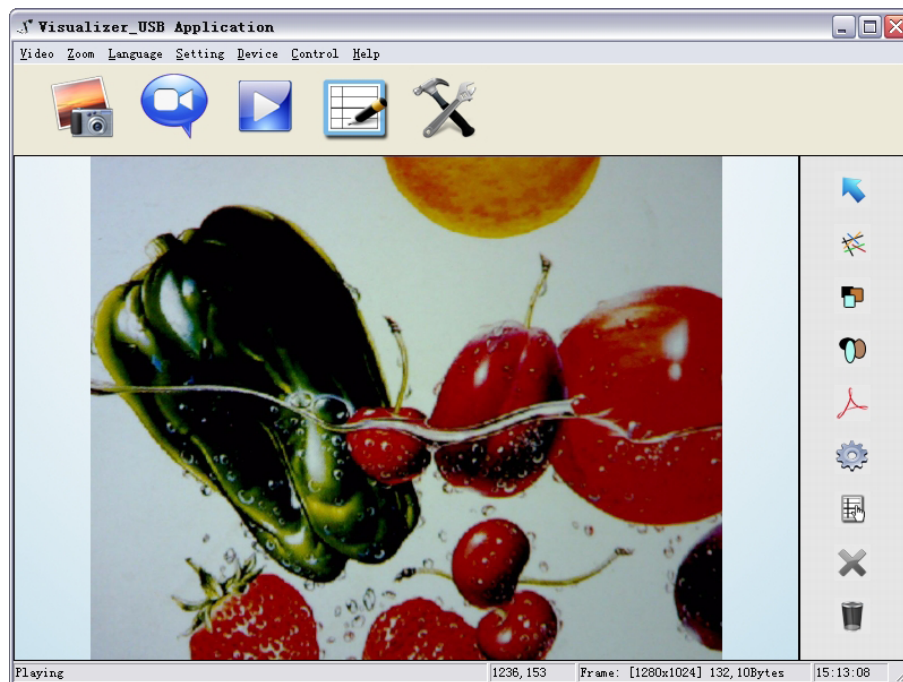


Click “save” to complete setting.

IMAGE MODIFICATIONS




To begin image modifications, click  icon.




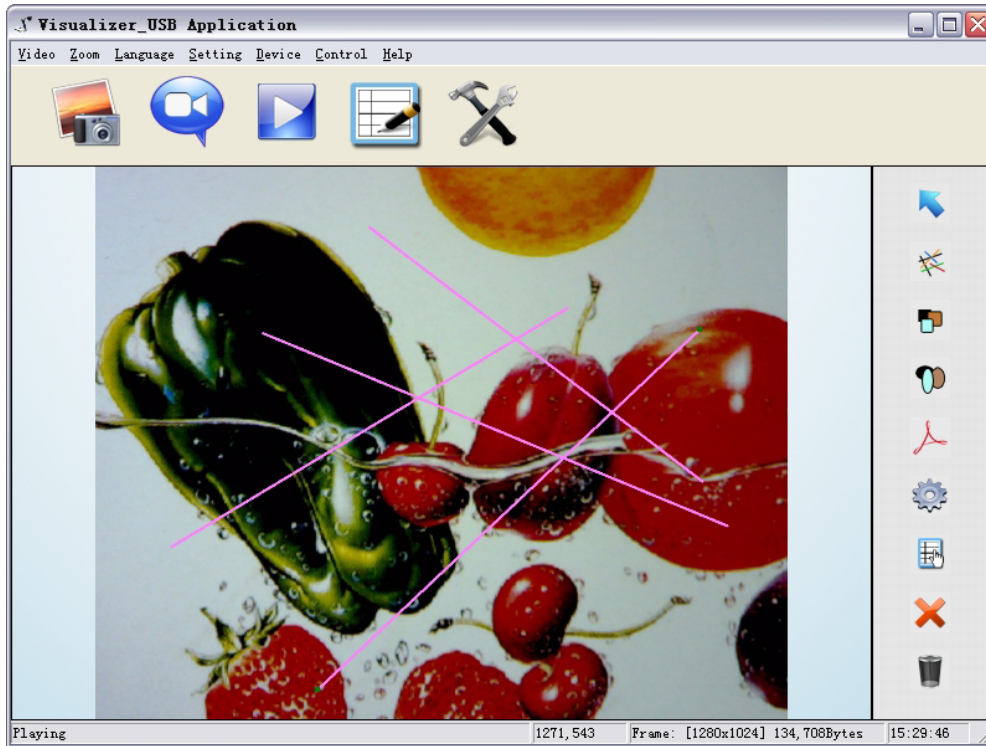
Select Graphic and Move




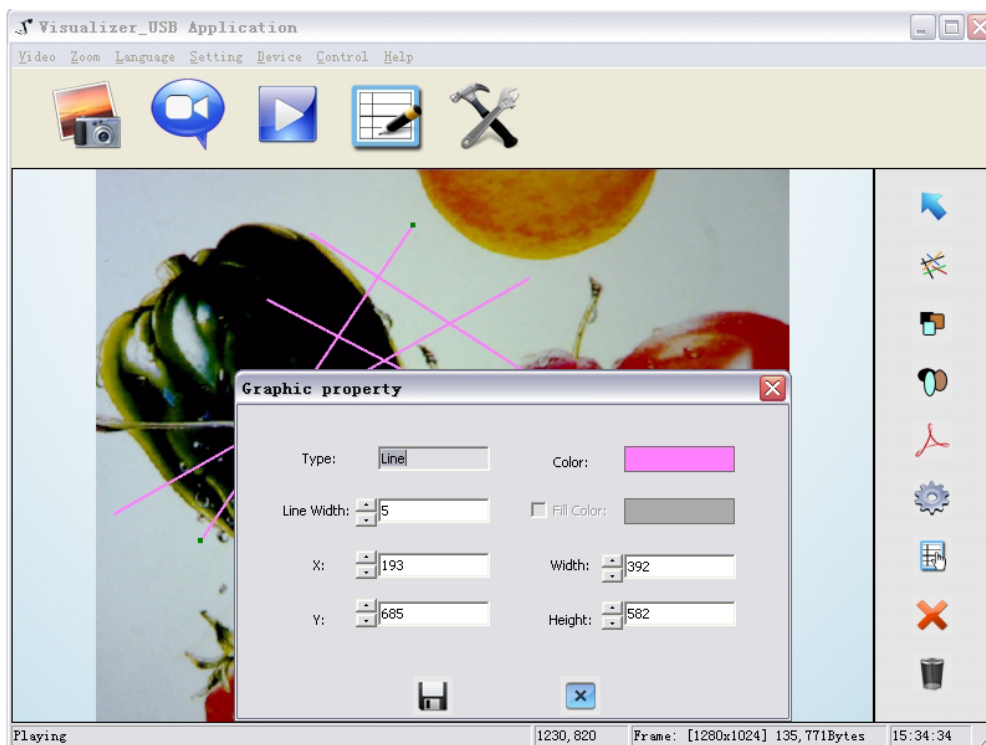
 icon allows you to select and move lines, circles, etc to a different position within the image.

Line

Clicking  icon allows you to create lines within the image.



 icon allows you to change the setting of the chosen line.

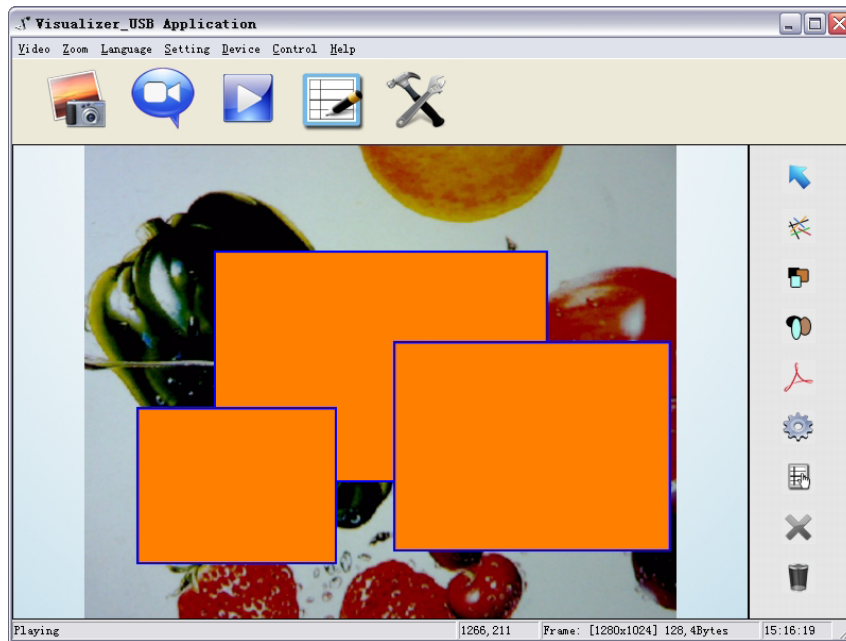


Line Width: Change the width of the line.
X, Y: Change the position of the line.
Color: Change the color of the line.
Width, Height: Change the angle of the line.

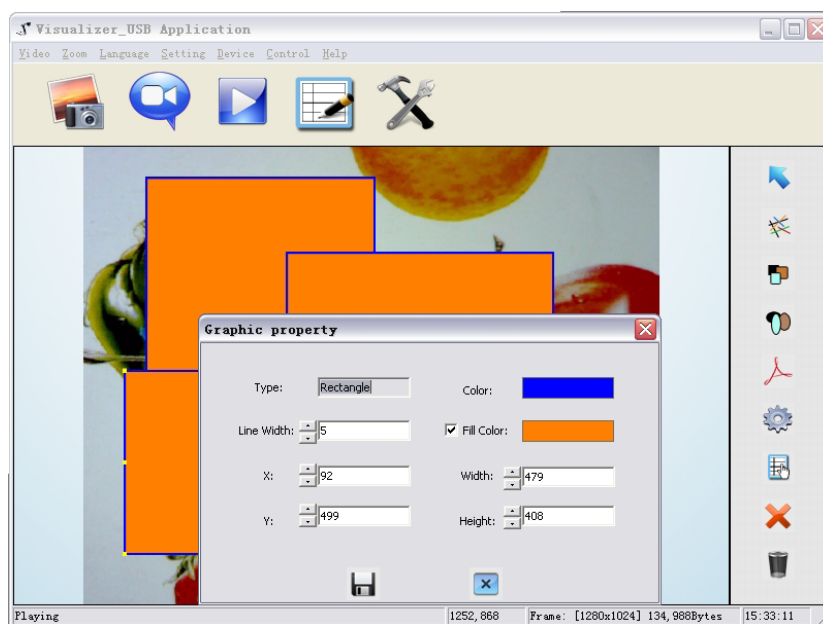
Rectangles



icon allows you to place a rectangle in the image as shown below.



icon allows you to change the setting of the chosen rectangle.



Line Width: Change the line width of the rectangle.

X, Y: Change the position of the rectangle.

Color: Change the line color of the rectangle.

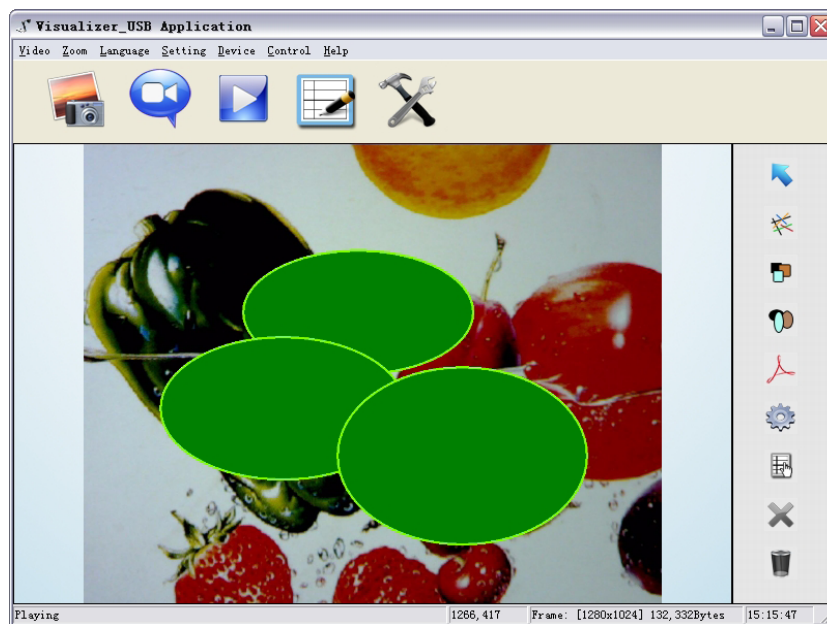
Fill Color: Check box to fill color in the rectangle.

Width, Height: Change the shape of the rectangle by changing the angle of two adjacent lines of the rectangle.

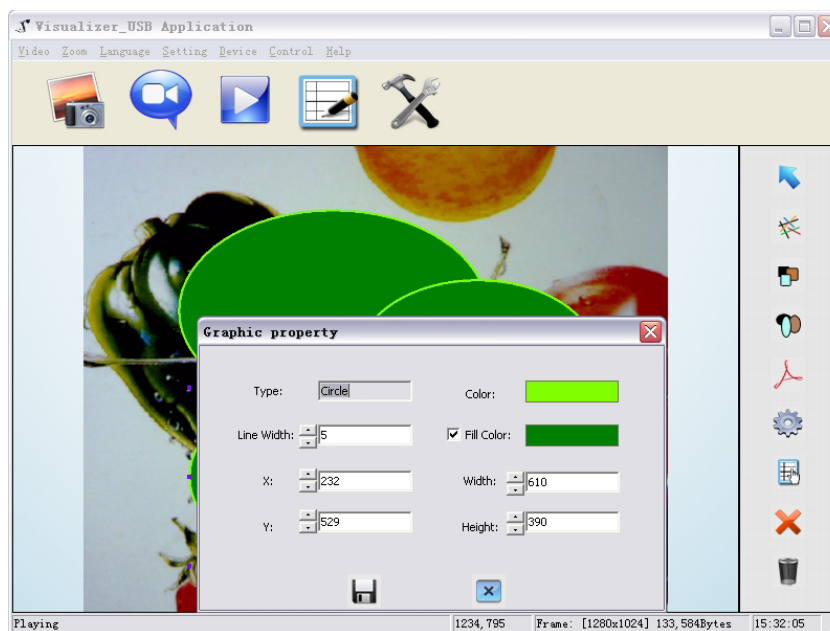
Circular Shapes



icon allows you to place circular shapes in the image as shown below.



icon allows you to change the setting of the chosen circle.



Line Width: Change the line width of the circle.

X, Y: Change the position of the circle.

Color: Change the line color of the circle.

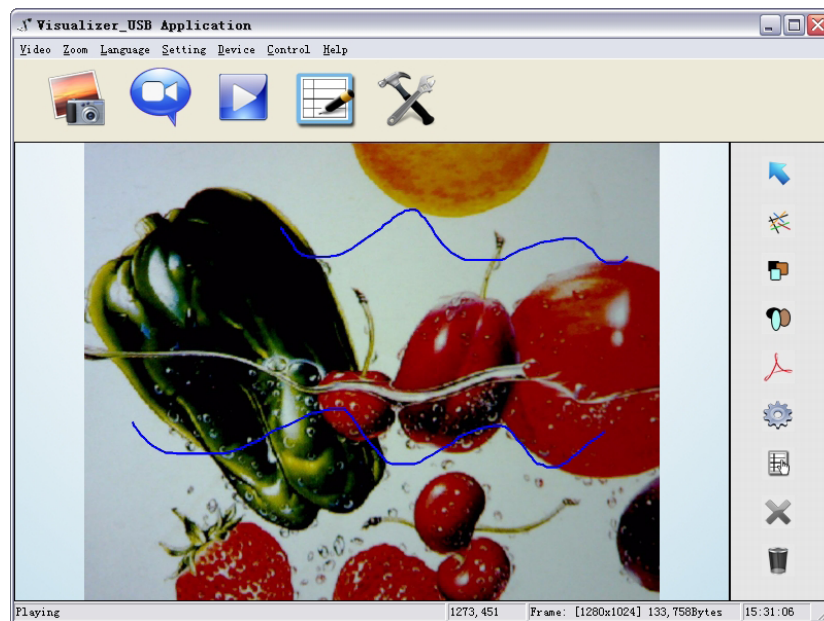
Fill Color: Check box to fill color in the circle.

Width, Height: Change the size of the circle.

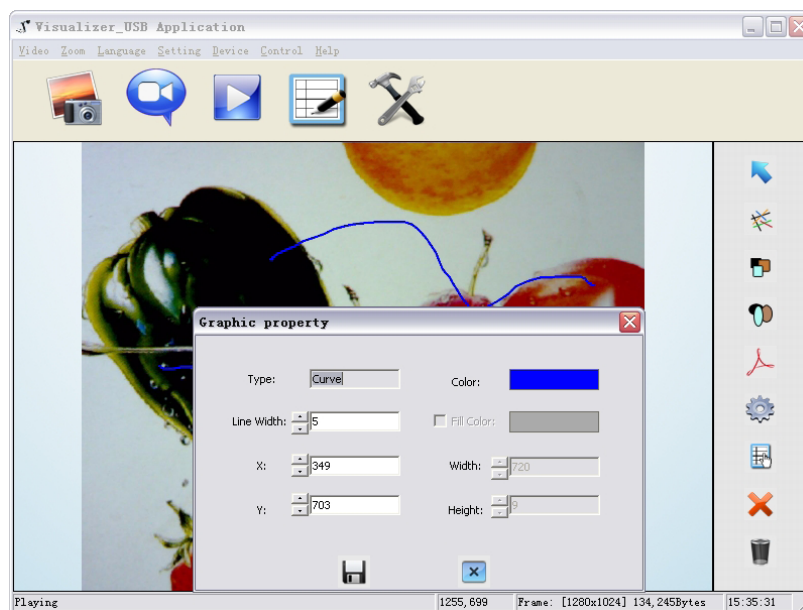
Freeform



icon allows you to place scribbles in the image as shown below.



icon allows you to change the setting of the chosen curve:



Line Width: Change the line width of the curve.

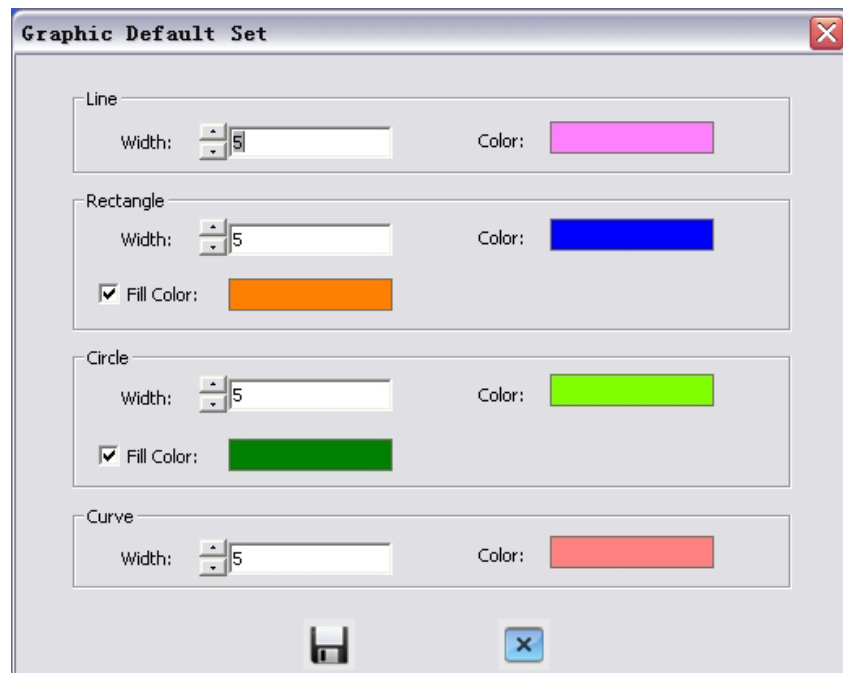
X, Y: Change the position of the curve.

Color: Change the line color of the curve.


Graphic Default Setting




icon allows you to change the default graphic setting.



Deleting Graphic

Click  to delete the chosen graphic.

Delete all the graphics

Click  to delete all graphics that are placed in the image.

7. FEATURES

LIGHT

DC300 is RoHS compliant, which means it meets the rigorous European Union's requirements for restriction of the use of certain hazardous substances in electrical and electronic equipment. DC300 uses eco-friendly, low-power LED's which are cool to the touch and mercury free.

ZOOM IN AND ZOOM OUT

DC300 enables you to view items in immense detail with 9x optical zoom combined with 12x seamless digital zoom. The advanced optical system of DC300 features high-speed auto focus capability that ensures quick auto focus when you zoom in and out of any object. You can also manually adjust focus to satisfy any special viewing needs by pressing "Fc +" and "Fc -".

FOCUS ADJUSTMENT

When the document camera is turned on, the focus automatically adjusts. It is not necessary to readjust the focus if you are only working with 2D materials (text, photos, etc.) Only 3D objects require a focus adjustment. Press the "AUTO" button to auto focus. Press the "Fc +" or "Fc -" button to focus manually.

BRIGHTNESS ADJUSTMENT

You can adjust the camera brightness by pressing the "Bri +" or "Bri -" button.

WHITE BALANCE ADJUSTMENT

Under different lighting conditions you may need to adjust the white balance. The "AUTO" button adjusts the white balance automatically and also assists with fine focus changes.

ROTATE MODE

Allows you to rotate images.

FREEZE IMAGE

Use "Frz" button to freeze and unfreeze the image.

MIRROR IMAGE

The "Mir" button allows you to show different perspectives of an object.

SPLIT SCREEN

The "Split" button allows you to split the screen and compare two different images or views of one object side by side.

IMAGE SAVE

The DC300 can store up to 12 images in its internal memory. You can recall stored images by pressing one of the numerical buttons on the front panel or remote control.

IMAGE RECALL

By pressing the "Recall" button, all saved images can be displayed. Using the "Pg +" or "Pg -" will allow you to toggle through the image library.

USB 2.0 VIDEO & IMAGE CAPTURE

The USB port can be used to store still images and video clips from the document camera to your computer. (Note: You will need to install the supplied software).

8. SPECIFICATION

Model	DC300
Sensor	1/3" CMOS
Pixels	2 Megapixels
Zoom	9x Optical, 12x Digital
Frame Rate	12
Shooting Area	Max: 16.5"x11.7", Min: 0.1"x0.1"
Focus	Auto/Manual
Output Resolution	XGA, SXGA
Resolution (Horizontal)	≥750 TV Lines
White Balance	Auto/Manual
Color Adjustment	Yes
Brightness Adjustment	Yes
Image Capture	Yes, 12 Images
Video Recording	Yes (via USB)
Image Mirror	Yes
Image Split	Yes
Image Freeze	Yes
Text Mode	Yes
OSD	Yes
USB 2.0	Slave x 1 (USB Camera)
Remote Control	Yes (360°Controllable)
Light Source	LED Light Box
Kensington Lock	Yes
Operating Temperature	32°F ~113°F
Dimensions	Setup: 17.7"x8.3"x19.7", Folded: 6.7"x8.3"x15.7"
Power Supply	12V DC Power Adaptor
Weight (net)	3.97lbs/1.8kg

9. TROUBLE-SHOOTING

Symptoms	Possible causes/counter-measures
No image	<ol style="list-style-type: none">1. Power cord is not properly connected.2. Cables are not properly connected.3. Power switch is not turned on.4. The built-in fuse is broken: Change fuse.5. Change the output resolution.
Image bending	<ol style="list-style-type: none">1. Camera is not in right position, adjust the camera.2. Press the AUTO
Out of focus or blurred image	<ol style="list-style-type: none">1. The object is too close to the lens.2. Focus is on the top point of zoom, press "Zm -".3. Auto-focus is not on: Press AUTO again.4. Fog on the lens in damp climate. It will disappear gradually when the equipment warms up.

If the problem still remains after checking the above, consult your dealer or authorized service center.

10. PACKING LIST

Item	Quantity
Power Cord	1
Power Adaptor (12V/2A)	1
VGA Cable	1
USB Cable (2.0)	1
Remote Control	1
User Manual (CD)	1

Contact: Optoma Technology, Inc., 3178 Laurelview Ct., Fremont, CA, Tel: 510-897-8600,
For customer service please call: 1-888-887-5001

All Specifications are subject to change without notice. ©2011 Optoma Technology, Inc. All other names mentioned herein are property of their respective owners.